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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/392,454	09/09/1999	GUY L. GRENIER	91436-193	1175

22463 7590 04/01/2003

SMART AND BIGGAR
438 UNIVERSITY AVENUE
SUITE 1500 BOX 111
TORONTO, ON M5G2K8
CANADA

EXAMINER	
FERRIS, DERRICK W	
ART UNIT	**PAPER NUMBER**
2663	6

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/392,454	GRENIER ET AL.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/30/03* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 September 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. **Claims 1-26** as originally filed or newly added are still in consideration for this application. Applicant has added claims 22-26.

2. Examiner **withdraws** the obviousness rejections to *Bullock et al.* in view of *Arao,* and *Bullock et al.* in view of *Arao* and in further view of *Anderson et al.* These two rejections are withdrawn and replaced with new art based on a new prior search in light of applicant's clarification with respected to the claimed subject matter. Hence this rejection is non-final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-5 and 13-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No., 5,838,924 to Anderson et al. ("*Anderson*") in view of U.S. Patent No., 6,452,906 to Afferton et al. ("*Afferton*").

As to **claims 1, 13-15, 19,20,21 and 22**, figure 5 of *Anderson* shows a flow chart illustration of a Virtual Path Group (VPG) protection switching algorithm employed in a sink node. Attention is drawn to the detection step 503 used to detect defect type indications (DTI) including physical layer defects and ATM layer defects [column 3, lines 15-22; column 5, lines 66-67; column 6, lines 1-19].

Specifically, examiner notes two general types of physical layer defects are known in the art: signal degrade (SD) and signal fail (SF). These are also further emphasized by applicant on pages 1-2 of applicant's written disclosure. Examiner notes mostly covered by *Anderson* for the list of physical layer defects are signal failure (SF) defects (e.g., LOS, LOF, LCD). Examiner notes *Anderson* also discloses signal degrade detection at the ATM layer (i.e., ATM layer defects) through "performance monitoring 'PM' flows" as defined by applicant [Applicant's disclosure on page 3]. Not clearly disclosed by *Anderson*, however, are signal degrade (SD) defects at the physical layer. Thus the reference is silent or deficient for detecting SD at the physical layer. Examiner notes that it would have been obvious to a skilled artisan prior to applicant's invention to also include signal degrade (SD) defects in general since signal degrade (SD) defects are also known defects detected at the physical layer. This is further supported in the Background of *Afferton* noting that in a Synchronous Optical Network/Synchronous Digital Hierarchy (SONET/SDH) network, signal fail (SF) and signal degrade (SD) faults are detected at a SONET/SDH network element (NE) [column 1, lines 20-30]. Examiner notes that the reference further goes on to disclose that the nearest pair of SONET/SDH NEs inserts an Alarm Indication Signal (AIS-P) in the failed path upon detection of a fault so that all other NEs down the signal paths are informed that there is a fault upstream. Thus the reference discloses that it is well known in the art to detect both SD and SF failures and then generally send a notification downstream through the network. Thus it would have also been obvious to someone skilled in the art to modify the ATM OAM cell in figure 4 to also include SD failures in addition to SF failures. The

motivation being that the reference includes a general defect type for physical layer defects. Thus creating a broad but reasonable interpretation of "generating ATM cells indicative of said signal degrade" (i.e., the recited claimed subject matter does not disclose how the ATM cells indicate a signal degrade only that it is broadly possible to indicate a signal degrade).

As to **claims 2, 3, 23 and 24**, shown in figure 5 of *Anderson* is switching over to a protection circuit.

As to **claim 4**, both references disclose transmitting ATM over SONET with emphasis on the Background of *Afferton*.

As to **claims 5 and 25**, the background of *Afferton* discloses using a bit-error rate in general.

As to **claim 16**, *Anderson* and *Afferton* both disclose using an alarm indication signal (recall that *Afferton* discloses that this can also be used with both SF and SD).

As to **claims 17**, *Afferton* discloses using bit error rates in general. Finally, *Anderson* discloses going between working and protection in general such that it would have been obvious to a skilled artisan prior to applicant's invention to implement the switching using the I.630 protocol, the motivation being to confirm to standards when performing protection switching.

As to **claim 18**, *Anderson* and *Afferton* both disclose using AIS cells transmitted in a down stream direction.

As both *Anderson* and *Afferton* disclose network communications in general, and more specifically transmitting information over SONET for detecting faults using AIS, examiner notes a motivation to combine the subject matter as a whole for both references.

5. **Claims 6-12, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No., 5,838,924 to Anderson et al. ("*Anderson*") in view of U.S. Patent No., 6,452,906 to Afferton et al. ("*Afferton*") in further view of U.S. Patent No., 6,247,051 to *Shimada*.

As to **claims 6 and 26**, not clearly disclosed by *Afferton* is using a parity check field as is well known in the art. Examiner notes that it would have been obvious to a skilled artisan to use part of the SONET header as a parity check field. *Shimada* provides further support and motivation be showing that the CRC error rate can be checked in a SONET header in general [column 9, lines 1-37].

As to **claim 7**, not clearly disclosed by *Afferton* is using a threshold for comparing the bit error rate as is well known in the art. Examiner notes that it would have been obvious to a skilled artisan to use a threshold for comparing the bit error rate in general. *Shimada* provides further support and motivation be showing that a threshold hold is used in comparing the BIP Error rate [column 9, lines 1-37].

As to **claim 8**, *Anderson* and *Afferton* both disclose using an alarm indication signal (recall that *Afferton* discloses that this can also be used with both SF and SD).

As to **claim 9**, *Anderson* and *Afferton* both disclose using AIS cells transmitted in a down stream direction.

As to **claim 10**, *Anderson* discloses using protection switching as shown in figure 5.

As to **claims 11 and 12**, *Afferton* discloses using bit error rates in general. *Shimada* also discloses that BIP error rates can also be used. Finally, *Anderson* discloses going between working and protection in general such that it would have been obvious to a skilled artisan prior to applicant's invention to implement the switching using the I.630 protocol, the motivation being to confirm to standards when performing protection switching.

Examiner notes that as all three references in general have to do with network communications and more specifically transmitting information over SONET while detecting failures, examiner notes a strong motivation to combine the subject matter as a whole for all three references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF
March 24, 2003

MELVIN MARCELO
PRIMARY EXAMINER